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ABSTRACT

The study determined the influence of students' values and adult education attitudes on their evaluation of faculty. Eighty-four adult education graduate students, enrolled in four sections of an adult learning theory course taught by three different instructors, completed an evaluation form, a value survey, and an adult education attitude scale at the end of the course. Multiple regression and path analysis showed that (1) adult education attitudes and selected values accounted for 27% of the variance in student evaluation of faculty, (2) adult education attitudes were responsible for 8% of the variance in student evaluation of faculty, and (3) values were not significantly related to student evaluation of faculty. A path model suggested that values influenced student evaluation of faculty through attitudes. The findings suggested that values and attitudes play an important part in student evaluation of faculty and should be recognized when interpreting the results of such ratings. (Author)

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An Analysis of Student Evaluation of Course and Instructor as an Expression of the Student's Values and Adult Education Attitudes

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Abstract

The study determined the influence of students' values and adult education attitudes on their evaluation of faculty. Eighty-four adult education graduate students completed an evaluation form, a value survey, and an adult education attitude scale at the end of an adult learning theory course. Multiple regression and path analysis showed that (a) adult education attitudes and selected values accounted for 27 percent of the variance in student evaluation of faculty, (b) adult education attitudes were responsible for 8 percent of the variance in student evaluation of faculty and (c) values were not significantly related to student evaluation of faculty. A path model suggested that values influenced student evaluation of faculty through attitudes. The findings suggested that the values and attitudes play an important part in student evaluation of faculty and should be recognized when interpreting the results of such ratings.

An Analysis of Student Evaluation of Course and Instructor as an Expression of the Student's Values and Adult Education Attitudes

Why do two individuals evaluate a like experience differently? This question, largely unanswered in the literature, led the researchers to examine adult education attitudes and values to determine the degree to which they could explain why adult education graduate students evaluate the same course and instructor differently.

It was anticipated that a person's values and attitudes would influence how that individual evaluated a learning experience. It was believed that attitudes would have more direct influence or evaluations than values. Values were seen as being more central to behavior determination than attitudes. Based on this concept, it was believed that values would only handle those evaluation questions that attitudes could not readily resolve. It was believed that attitudes and values were closely related and that they each would influence the formation of the other.

Method

Eighty-four adult education graduate students enrolled in four sections of an adult learning theory course participated in the study. The sections were taught by three different instructors. The participating students completed an adult education attitude scale, a value survey, and a course and instructor evaluation. The data were collected at the end of the fall semester, 1975, at North Carolina State University in Raleigh. Values were measured by the Value Survey, adult education attitudes by the Educational Orientation Questionnaire, and the student evaluation of faculty by the Course and Instructor Evaluation instrument.

The Educational Orientation Questionnaire was developed by Herschel Hadley (1975) to measure adult education attitudes along an andragogy-pedagogy continuum. The instrument contained 60 Likert type items. Test-retest reliability was .89 (Hadley, 1975, p. 88) with a coefficient alpha of .96 (Hadley, 1975, p. 89). A high score indicated adult education attitudes were closely allied with andragogy.

The Value Survey developed by Milton Rokeach (1967: 1973, pp. 26-52) contains two lists of 18 alphabetically arranged values. Printed on gummed labels, one list contains terminal values which are "end states" or "goals" the respondent wants to achieve. The other list contains instrumental values which are "moral values" or "means" that the individual has feelings about. The respondent moves the gummed labels until each list is arranged in a hierarchy (1-18, with 1 being the most important and 18 being the least important) of importance to him. A low score indicates that a value is considered more important by a respondent.

The Course and Instructor Evaluation instrument was developed by the Department of Adult and Community College Education at North Carolina State University and is used to evaluate each class taught by the department. The instrument contains 28 items of which 26 are Likert type items concerning specific aspects of the learning situation. The other two items are "marco" in scope representing an overall assessment of the course and the instructor respectively. A high score on the instrument indicates a high rating for the course and the instructor.

Analysis of Data

Statistical Analysis System (SAS) programs were used to analyze the data. Factor analysis (Service, 1972, pp. 201-203) was used to determine the best technique of presenting the Course and Instructor Evaluation data.

Relationships between variables were analyzed using REGR (Service, 1972, p. 99) and CORR (Service, 1972, pp. 208-209) SAS procedures.

Student evaluation of faculty, as measured by the Course and Instructor Evaluation instrument was the main dependent variable. Course and instructor evaluation was analyzed as a single score that represented the sum of six mean factor scores identified by the SAS FACTOR procedure (Service, 1972, pp. 201-203). As the dependent variable, course and instructor evaluation was compared with the independent variables using the SAS regression (REGR) program.

Values, as measured by the Value Survey, were independent variables. The main analysis grouped the 36 values into seven factors identified by Rokeach (1973, p. 47). The 36 values were also analyzed with the other variables using CORR procedures. The seven value factors were compared with the other variables by means of the SAS REGR and CORR procedures.

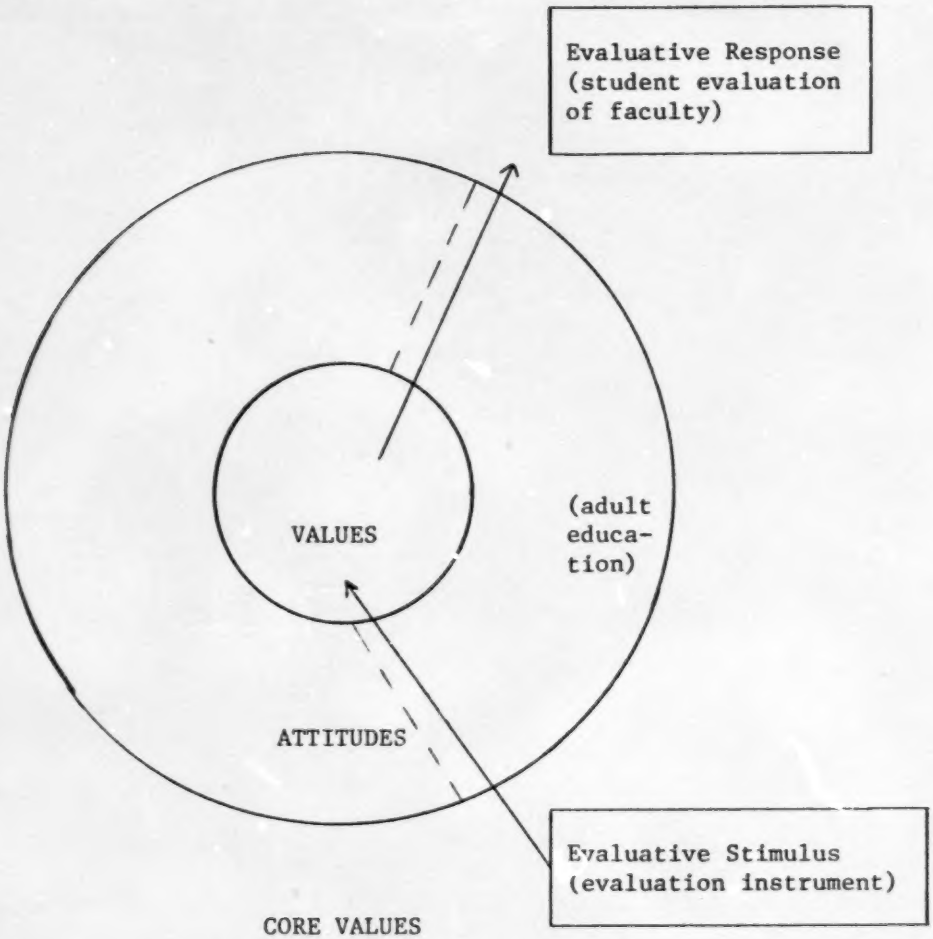
Adult education attitudes, as measured by the Educational Orientation Questionnaire, was the other independent variable. Adult education attitudes were anlayzed with the variables as a single score which was the sum of eight factor scores. The eight factors identified by Hadley (1975, p. 105) were used to obtain the factor scores. Again, REGR and CORR procedures were used to compare adult education attitudes, values and course and instructor evaluation.

Regression analysis (REGR) was used to identify a model to use as a Path diagram to measure possible combined influence of adult education attitudes and values on course and instructor evaluation. Regression lines were run for adult education attitudes and values to determine model components. Once the possible model was identified, all possible regression lines were run using REGR procedure to develop the Path diagram (Babbie, 1973, pp. 324-327).

DATA ANALYSIS FRAMEWORK

Student Value Factors		Student Adult Education Attitudes	Student Evaluation of Course and Instructor
X1	Immediate versus delayed gradification		
X2	Competence versus religious morality		
X3	Self-constriction versus self-expansion	Y	Z
X4	Social versus personal orientation		
X5	Societal versus family security		
X6	Respect versus love		
X7	Inner versus other directed		

The Data Analysis Framework follows the conceptual model outline in the beginning of the paper. It is depicted graphically as follows:



Results and Discussion

Relationship of Values to Student Evaluation of Course and Instructor:

Values were found to have no significant relationship with student evaluation of course and instructor. (See Table I) Apparently the student evaluation of course and instructor was not enough to call values into action. Student evaluation of course and instructor did not appear to be a significant function of values.

Relationship of Adult Education Attitudes of Student Evaluation of Course and Instructor:

The correlation of student evaluation of course and instructor to students' adult education additudes was .2913 which was significant at the .01 level. Regression analysis indicated that students' adult education attitudes accounted for eight percent of the variance in students' evaluation of course and instructor which was significant at the .05 level. (Table II) The higher the students' total attitude score (toward andragogy) the higher his evaluation of the course and the instructor.

Relationship to Values to Adult Education Attitude:

Both regression and correlation analysis indicated a significant relationship between students' values and their adult education attitudes. The regression analysis showed that the seven value factors together accounted for 26 percent of the variance of adult education attitudes. (Table III).

Of the seven value factors in the regression analysis, X_4 and X_2 proved to be the most important. The X_4 variable had over twice the effect on adult education attitudes as did X_2. The X_4 variable had a negative relationship with adult education attitudes. Further explanation of the X_4 variable "social versus personal orientation" indicated that the more students valued "A World at Peace, National Security, Equality,

Table I. Analysis of variance for regression of students' values from their evaluation of course and instructor[a]

Source	DF	Partial SS	F Value	Probability > F
X_1	1	0.5669	0.08935	0.7661
X_2	1	11.3624	1.79071	0.1862
X_3	1	0.1740	0.02743	0.8690
X_4	1	0.9055	0.14270	0.7070
X_5	1	2.9261	0.46115	0.4998
X_6	1	0.0072	0.00113	0.9733
X_7	1	4.2837	0.67511	0.4147

Source of Variance	DF	SS	MS	F Value	Probability > F	R-Square
Regression	7	30.4686	4.35	0.68598	0.6851	0.0777
Error	57	361.6755	6.35			
Corrected Total	64	392.1441				

[a] N = 65.

Not significant.

Table II. Analysis of variance for regression of students' adult education additudes from their evaluation of course and instructor[a]

Source of Variance	DF	SS	MS	F Value	Probability > F	R-Square
Regression	1	32.1840	32.184	5.633*	0.0207	0.0821
Error	63	359.9601	5.714			
Corrected Total	64	392.1441				

[a] N = 65.

* = .05 level of significance.

Table III. Analysis of variance of regression of students' value factors from students' adult education attitude[a]

Source	DF	Partial SS	F Value	Probability > F
X_1	1	5.8074	0.4482	.5056
X_2	1	32.9592	2.5437	.1162
X_3	1	11.2107	0.8652	.3561
X_4	1	45.3737	3.5091	.0663
X_5	1	0.3562	0.0275	.8689
X_6	1	1.9943	0.1539	.6963
X_7	1	0.0003	0.0001	.9961

Source of Variance	DF	SS	MS	F Value	Probability > F	R-Square
Regression	7	260.700	37.243	2.874**	.012	.258
Error	58	751.507	12.957			
Corrected Total	65	1012.207				

[a] N = 65.

** = .01 level of significance.

Freedom, True Friendship and Self-respect" the higher their orientation toward andragogy.

Table IV presents the correlations of the 36 individual values with adult education attitudes. Of the total 36 values, six values were significant at the .001 level, one value was significant at the .01 level and 11 were significant at the .05 level. Half of the 36 values had a significant relationship with students' adult education attitudes.

The seven values with correlations at the .01 level or better in Table IV indicated that students with an andragogical orientation (high score on adult education attitudes) highly valued "Equality, Broadminded, Helpful, and Imaginative." Those same students tended to place low value on "A Comfortable Life, Salvation, and Obedient."

The results indicated a strong relationship between students' values and their adult education attitudes.

The Interrelationship of Values and Adult Education Attitudes with Student Evaluation of Course and Instructor:

An analysis of variance of regression (Table II) containing two value factors (X_2 and X_4) and adult education attitudes (Y) accounted for 27 percent of the variance in student evaluation of course and instructor which was significant at the .001 level.

The path analysis in Figure 2 shows the relative influence of the independent variables, Y, X_2, and X_4 on the dependent variable Z. Educational attitudes (Y) had the strongest influence on student evaluation of course and instructor (Z) with a standardized beta weight of .506. Value factors X_2 and X_4 had almost equal influence on Z with beta weights of -.325 and .348 respectively. It should be noted that X_2 had an inverse relationship with Y while X_2 had a positive relationship with Y.

Table IV. Correlation Matrix of Values Held by Students with Their Adult Education Attitudes and Evaluation of Course and Instructor

Values of Students	Student Adult Education Attitudes	Student Evaluation of Course and Instructor
Terminal Values		
A Comfortable Life	.4366***	.1646
An Exciting Life	-.1118	.0003
A Sense of Accomplishment	-.1753	.1109
A World at Peace	-.2495*	-.0500
A World of Beauty	-.2268*	-.1901
Equality	-.4133***	-.0347
Family Security	.2255	.2308*
Freedom	-.2416*	.0176
Happiness	.2240*	.1411
Inner Harmony	.2540*	-.1709
Mature Love	-.1819	-.0901
National Security	-.0325	-.2377*
Pleasure	.1847	.0236
Salvation	.3787***	-.0202
Self Respect	-.1529	.1031
Social Recognition	-.0140	.0173
True Friendship	-.1125	.0396
Wisdom	-.0933	-.1326
Instrumental Values		
Ambitious	.2700*	.2089
Broadminded	-.3178*	-.1439
Capable	-.0126	.0982
Cheerful	-.0741	.1412
Clean	.2838*	.0181
Courageous	-.2844*	-.2862*
Forgiving	.0512	-.0857
Helpful	-.4280***	-.0144
Honest	-.0703	-.0029
Imaginative	-.4317***	-.2461*
Independent	-.0281	.1329
Intellectual	.1105	-.1102
Logical	.2447*	-.1846
Loving	-.2170	-.0227
Obedient	.3827***	-.0083
Polite	.2751*	.2080
Responsible	.1995	.3141**
Self-Controlled	.1800	.0605

* = .05 level of significance.

** = .01 level of significance.

*** = .001 level of significance.

Table V

Analysis of Variance of Regression of Students' Value Factors (X_2 and X_4) and Adult Education Attitudes (Y) from Students' Evaluation of Course and Instructor (Z)[a]

Source	DF	Partial SS	F Value	Probability > F
X_2	1	43.2849	9.1958	.0035
X_4	1	42.3062	8.9879	.0038
Y	1	86.1904	18.3110	.0001

Source of Variance	DF	SS	MS	F Value	Probability>F	R-Square
Regression	3	116.8898	38.9633	8.2777***	.0002	.2734
Error	66	310.6639	4.7070			
Corrected Total	69	427.5537				

[a]N = 65.

*** = .001 level of significance.

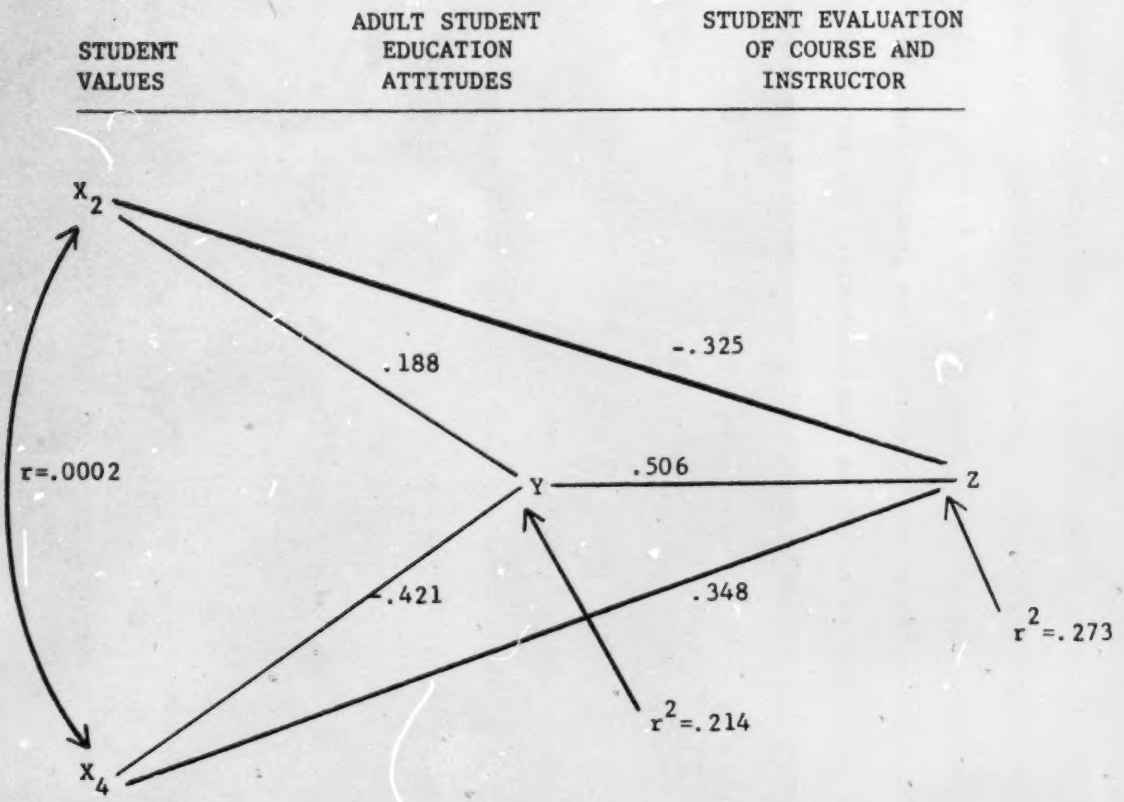


FIGURE 2. PATH ANALYSIS OF THE RELATIVE EFFECT OF STUDENTS" VALUES (X_2 AND X_4) AND STUDENTS' ADULT EDUCATION ATTITUDES (Y) ON STUDENT EVALUATION OF COURSE AND INSTRUCTOR (Z) USING STANDARDIZED BETA WEIGHTS.

The correlation coefficient between X_2 and X_4 was only .0002 which was nonsignificant. The R-Square value of .273 indicated that (1 - .273) 72.7 percent of the variance was not explained by the model. The R-Square of .214 indicated that X_2 and X_4 explained 21 percent of the variance in Y and left 79 percent of the variance unexplained. The three variables X_2, X_4, and Y explained more of the variance in Z than X_2 and X_4 explained in Y.

The combination of variables X_2, X_4 and Y explained 27.4 percent of the variance in Z. All seven value factors (X_1 - X_7) accounted for only 7.7 percent of the variance while adult education attitudes explained 8.2 percent of the variance. By combining only two value factors and adult education attitudes the variance explained in Z was greater than the combined sums of both sets of variables independently. The path diagram shows clearly that there is an interaction effect of students' values and adult education attitudes on their evaluation of a course and the instructor.

A closer analysis of the Path Model in Figure 1 shows that the X_2 variable operated directly on student evaluation of course and instructor while the X_4 variable has a stronger "path" through adult education attitudes than directly to student evaluation of course and instructor. Those students rating the course the highest tended to have andragogical attitudes and highly value "Logical, Imaginative, Intellectual, Independent, Forgiving, Salvation, Helpful, and Clean."

Summary

The study strongly suggested that student evaluation of course and instructor is partially a product of student's values and adult education attitudes. Selected student value factors and adult education attitudes of students accounted for 27 percent of the variance in their ratings of their course and instructor.

It was found that values by themselves did not significantly influence the students' evaluation of their course and the instructors. Students' adult education attitudes were shown to have a significant relationship with their evaluation of the course and the instructor. The study also indicated that students' values were strongly related to their adult education attitudes.

The interacting effect of certain student values factors with adult education attitudes to cause variance in the students' evaluation of course and instructor was significant to the .001 level.

The study showed that the adult education attitudes were more closely related to evaluation than values. Among all variables the correlation between values and attitudes was the highest. Together attitudes and values had a strong effect on evaluation. Adult education attitudes were significantly related to both values and student evaluation of course and instructor.

Recommendations for Additional Research

Based on the review of the literature and the research reported, the following recommendations for further research are suggested:

1. That the design be repeated with a larger N, a stratified sample, an undergraduate population, and substitute evaluation instruments.

2. That the amount of attitude or value change occurring during a course be considered as a predictor of student evaluations of instructors.

3. That the level of congruence between students' and professors' attitudes and values be considered as an indicator of student evaluation of course and instructor.

4. The amount of influence the instructor has on student evaluation of course and instructor be studied.

5. The level of congruence between students' and professors' personality characteristics be examined as an indicator of student evaluation of course and instructor.

6. That the values and adult education attitudes be repeated with a larger population with a more complete analysis.

7. That values and adult education attitudes instruments be studied as to their usefulness in predicting success as adult education educators.

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